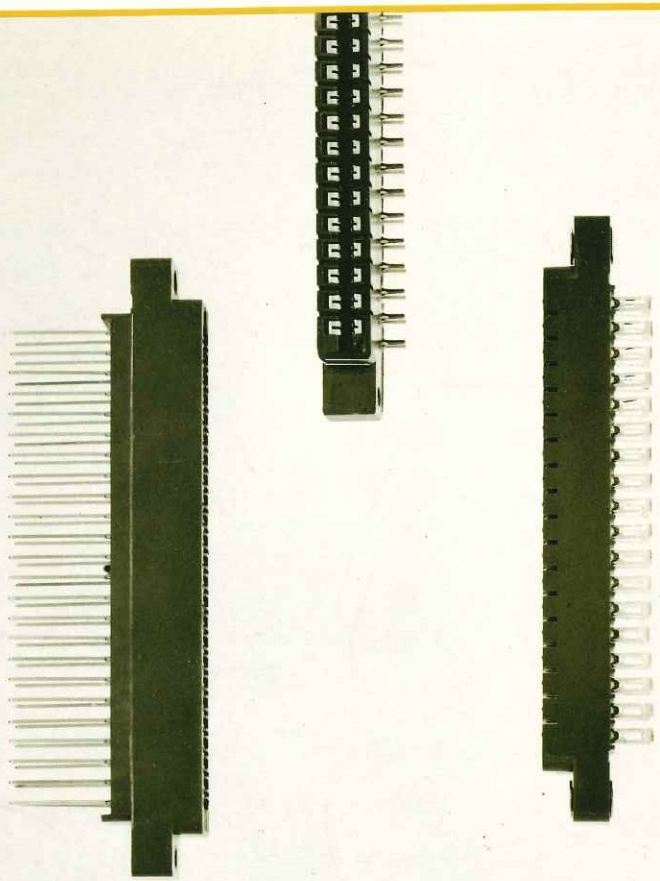
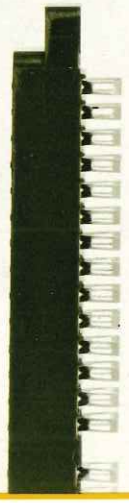


OCTOBER
1967

X-26

PRINTED CIRCUIT & TEST POINT CONNECTORS



VIKING

INDUSTRIES INC.

Recd. 11/14/67

INTRODUCTION

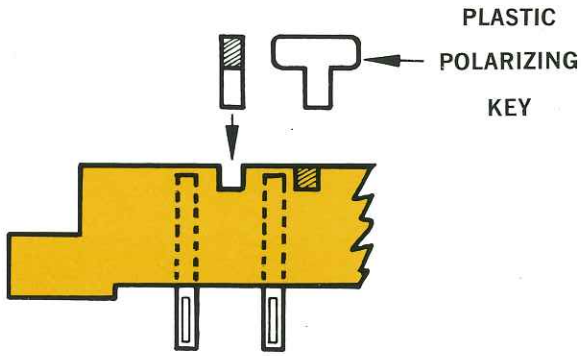
Viking Industries, Inc. manufactures a wide variety of printed circuit connectors for military and commercial applications. The key to using this catalog is knowing the basic design parameters of the printed circuit card and the connector termination style required. Refer to the index on the next page which categorizes the types and size of connectors available. Where applicable, connectors have been designed to be in conformance to MIL-C-21097 with extensive supporting test data available on a special request basis. Recommended electrical operating characteristics are listed with each connector series.

Viking has produced many customer "specials" not found in this catalog which, in most cases, can be made available. We also invite you to consult with us on your special connector specifications.

FEATURES

BETWEEN CONTACT POLARIZING

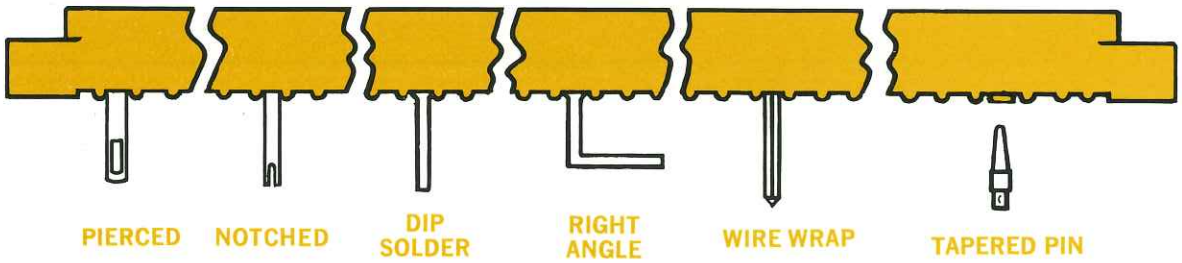
Most Viking connectors are slotted between contacts eliminating the older method of substituting a key for one or more contacts. It is noted where between contact polarizing is or is not available at the top of each page.



COPPER ALLOY (SPRING) CONTACTS

The four spring contact shapes have been proven reliable for thousands of board insertions and extractions with no detrimental effect to board circuitry or electrical integrity. The majority of connectors in this catalog accept .062 boards having a tolerance from .054-.071 and in some cases 3/32" boards having a tolerance of .084-.101. Most contacts are field replaceable.

VARIETY OF CONTACT TERMINATIONS



CHOICE OF MOUNTING STYLES

TYPICAL ORDERING CODE NUMBER 2 VH 22 / 1 A N 5 –45 (OR) –R

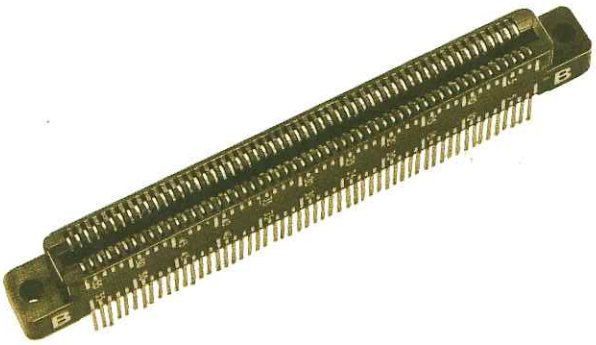
- 2 — Prefix specifying slots for plastic removable polarizing key(s)
- VH — Identifies a Viking printed circuit connector
- 22 — Number of contacts
- 1 — Type of insulator material
- A — Denotes dimension of contact centers
- N — Designates the type of contact terminations
- 5 — Specifies the mounting style
- –45 (OR) — Locates contact number(s) where plastic key(s) are to be placed between contacts (to be used with prefix number 2 when key(s) are factory installed).
- –R — Locates contact(s) that will be replaced by permanent copper alloy key

INDEX

CONTACT SPACING	BOARD THICKNESS	NUMBER OF CONTACTS	SINGLE ROW	DOUBLE ROW	STYLE AND/OR TERMINATIONS	PAGE NUMBER
.050	.062	20, 28, 30, 44, 50, 68, 80, 110, 120, 128, 132		X	MICROMINIATURE	3
.100	.062	12, 20, 30, 36, 40, 44, 50, 56, 60, 72, 80, 88, 100		X	MICROMINIATURE, PIERCED OR DIP SOLDER	4
.100	.062	36, 40, 44, 50, 56, 60, 62, 72, 80, 86, 88, 98, 100		X	MICROMINIATURE, .025 WIRE WRAP POSTS	5
.125	.062 & .093	12, 20, 28, 30, 36, 44, 56, 62, 70, 80, 88, 98, 100		X	.025 WIRE WRAP POSTS	6
.125	.062	12, 20, 30, 36, 44, 56, 62, 72		X	PIERCED & DIP SOLDER	7 (TOP)
.125	.062	28	X		PIERCED & DIP SOLDER	7 (BOTTOM)
.150	.062	210		X	PIERCED, DIP SOLDER & RIGHT ANGLE	8
.150	.062	56		X	PIERCED & DIP SOLDER	9
.156	.062	6, 10, 15, 18, 22	X		PIERCED & DIP SOLDER	10
.156	.062	12, 20, 30, 36, 44		X	PIERCED, DIP SOLDER & NOTCHED	11
.156	.062	56		X	PIERCED, DIP SOLDER & NOTCHED (CENTER BARRIER)	12 (TOP)
.156	.062	72		X	PIERCED, DIP SOLDER & NOTCHED	12 (BOTTOM)
.156	.062	12, 20, 30, 36, 44, 56, 62, 80, 86		X	.031 x .062 WIRE WRAP POSTS	13
.156	.062	6, 10, 15, 18, 22	X		RIGHT ANGLE DIP SOLDER	14 (TOP)
.156	.062	12, 20, 30, 36, 44		X	RIGHT ANGLE DIP SOLDER	14 (BOTTOM)
.156	.062	30, 36, 44, 54		X	TAPERED PIN TERMINATIONS	15 (TOP)
.125 & .156	.062	22, 31, 41	X		TAPERED PIN TERMINATIONS	15 (BOTTOM)
		1, 3, 4,			TEST POINT CONNECTORS	16
		5, 6, 8			TEST POINT CONNECTORS	17
		37, 41			TEST POINT CONNECTORS	18 (TOP)
					VIKOM (COMMERCIAL PC CONNECTORS)	18 (BOTTOM)

.050" CONTACT CENTERS / .062" BOARD THICKNESS
MICROMINIATURE (DOUBLE ROW)

NOTE: POLARIZING KEYS REPLACE TWO (2) OPPOSING PAIR OF CONTACTS

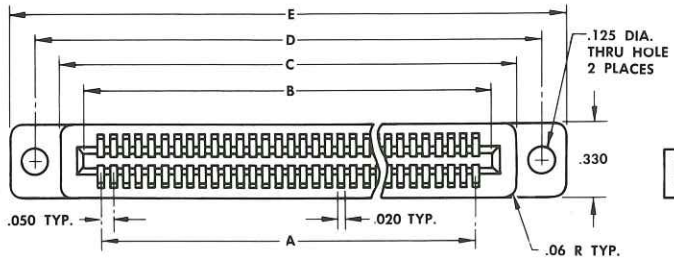


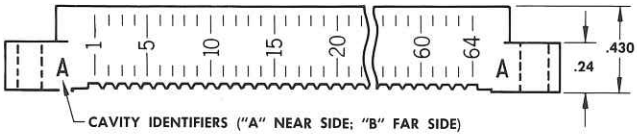
CHARACTERISTICS

OPERATING VOLTAGE: 250 VAC (sea level)
CURRENT: ½ amp
VOLTAGE DROP: Will not exceed 20 MV at ½ amp
VIBRATION: No discontinuity greater than 1 microsecond at resonant frequency at acceleration level of 15G
TEMPERATURE: To 400°F

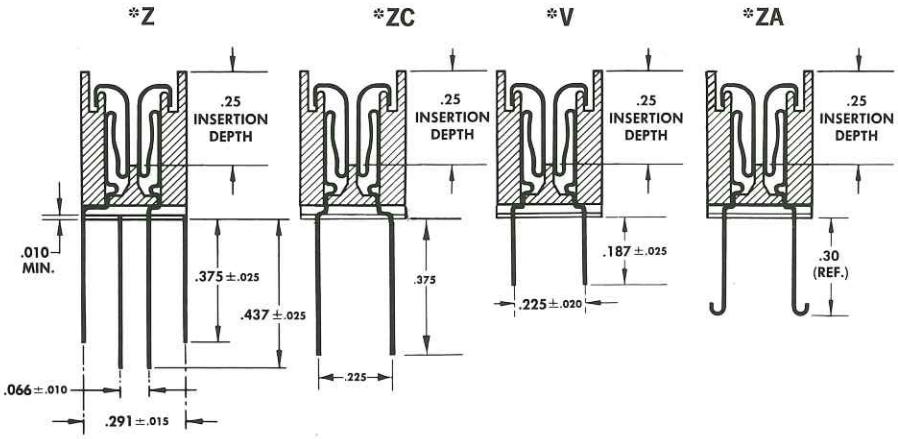
MATERIALS

INSULATOR: Diallyl Phthalate per MIL-M-14, Type SDG, color: green
CONTACTS: Beryllium copper per QQ-C-533. Plated .00005 Min gold per MIL-G-45204, Type II



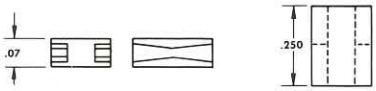


TERMINAL STYLES



PLASTIC POLARIZING KEY

PART NO. 091-0042-000

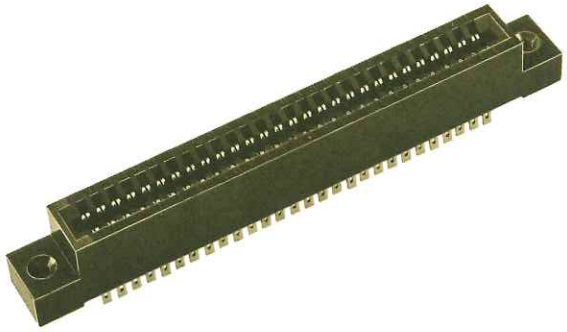


NUMBER OF CONTACTS	PART NUMBER	DIMENSIONS ±.005					CONTACT IDENTIFICATION
		A	B	C	D	E	
10/20	VH10/1L*5	.450	.626	.720	1.000	1.220	1, 5, 10
14/28	VH14/1L*5	.650	.826	.920	1.200	1.420	1, 5, 10, 14
15/30	VH15/1L*5	.700	.876	.970	1.250	1.470	1, 5, 10, 15
22/44	VH22/1L*5	1.050	1.226	1.320	1.600	1.820	1, 5, 10, 15, 20, 22
25/50	VH25/1L*5	1.200	1.376	1.470	1.750	1.970	1, 5, 10, 15, 20, 25
34/68	VH34/1L*5	1.650	1.826	1.920	2.200	2.420	1, 5, 10, 15, 20, 25, 30, 34
40/80	VH40/1L*5	1.950	2.126	2.220	2.500	2.720	1, 5, 10, 15, 20, 25, 30, 35, 40
55/110	VH55/1L*5	2.700	2.876	2.970	3.250	3.470	1, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55
60/120	VH60/1L*5	2.950	3.126	3.220	3.500	3.720	1, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70
64/128	VH64/1L*5	3.150	3.326	3.420	3.700	3.920	1, 5, 10, 15, 20, 25, 30, THRU 60. 64
66/132	VH66/1L*5	3.250	3.426	3.520	3.800	4.020	1, 5, 10, 15, 20, 25, 30 THRU 60. 65. 66

*ADD TERMINAL STYLE FROM ABOVE. EXAMPLE: VH10/1LZ5

.100" CONTACT CENTERS/.062" BOARD THICKNESS
(DOUBLE ROW)

NOTE: POLARIZING KEYS REPLACE TWO (2) OPPOSING CONTACTS

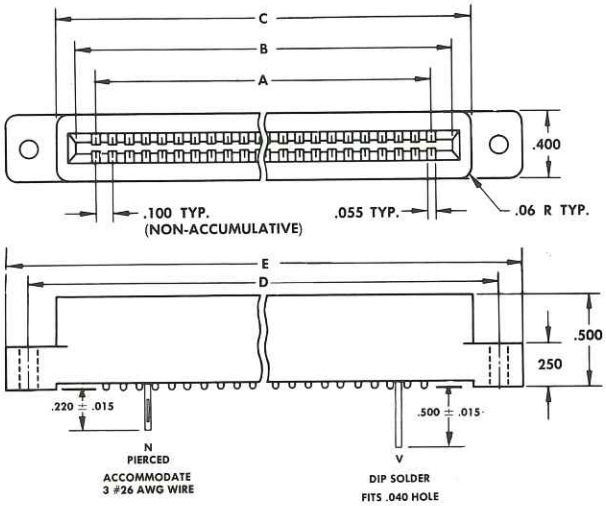


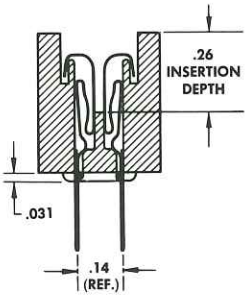
CHARACTERISTICS

OPERATING VOLTAGE: 600 VDC (sea level)
CURRENT: 3 amps
VOLTAGE DROP: Will not exceed 30MV at rated current
TEMPERATURE: To 400°F

MATERIALS

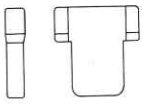
INSULATOR: Diallyl Phthalate per MIL-P-19833, Type GDI-30, MIL-M-14, Type SDG, color: green
CONTACTS: Beryllium copper per QQ-C-533. Plated .000031 Min gold per MIL-G-45204, Type II





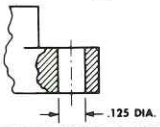
PLASTIC POLARIZING KEY

PART NO. 091-0025-000



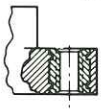
MOUNTING STYLES

*—5



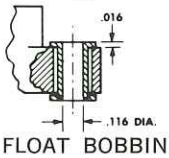
CLEARANCE HOLE
.125 DIA.

*—3



THREADED BUSHING
4-40 2B

*—8



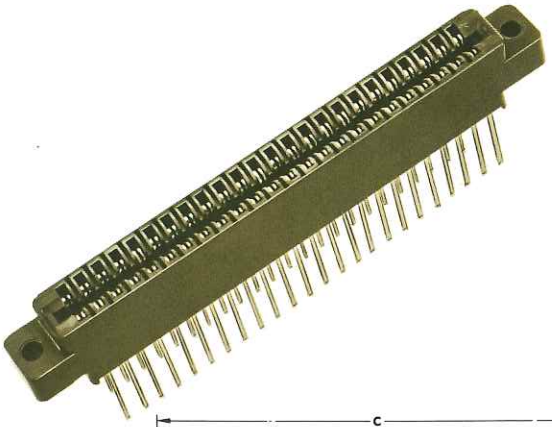
FLOAT BOBBIN

NUMBER OF CONTACTS	PART NUMBERS		DIMENSIONS					CONTACT IDENTIFICATION	
	PIERCED	DIP SOLDER	A ±.005	B +.015 −.000	C ±.010	D ±.005	E ±.015	LETTERS	NUMBERS
6/12	VH6/1JN*	VH6/1JV*	.500	.700	.875	1.175	1.475	A and B	1 thru 6
10/20	VH10/1JN*	VH10/1JV*	.900	1.100	1.275	1.575	1.875	A and B	1 thru 10
15/30	VH15/1JN*	VH15/1JV*	1.400	1.600	1.775	2.075	2.375	A and B	1 thru 15
18/36	VH18/1JN*	VH18/1JV*	1.700	1.900	2.075	2.375	2.675	A and B	1 thru 18
20/40	VH20/1JN*	VH20/1JV*	1.900	2.100	2.275	2.575	2.875	A and B	1 thru 20
22/44	VH22/1JN*	VH22/1JV*	2.100	2.300	2.475	2.775	3.075	A and B	1 thru 22
25/50	VH25/1JN*	VH25/1JV*	2.400	2.600	2.775	3.075	3.375	A and B	1 thru 25
28/56	VH28/1JN*	VH28/1JV*	2.700	2.900	3.075	3.375	3.675	A and B	1 thru 28
30/60	VH30/1JN*	VH30/1JV*	2.900	3.100	3.275	3.575	3.875	A and B	1 thru 30
36/72	VH36/1JN*	VH36/1JV*	3.500	3.700	3.875	4.175	4.475	A and B	1 thru 36
40/80	VH40/1JN*	VH40/1JV*	3.900	4.100	4.275	4.575	4.875	A and B	1 thru 40
44/88	VH44/1JN*	VH44/1JV*	4.300	4.500	4.675	4.975	5.275	A and B	1 thru 44
50/100	VH50/1JN*	VH50/1JV*	4.900	5.100	5.275	5.575	5.875	A and B	1 thru 50

*ADD MOUNTING STYLE NUMBER FROM ABOVE. EXAMPLE: VH6/1JN5

.100" CONTACT CENTERS / .062" BOARD THICKNESS

.025" WIRE WRAP TERMINATIONS (DOUBLE ROW) BETWEEN CONTACT POLARIZING

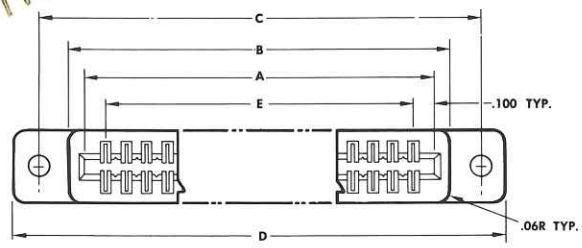


CHARACTERISTICS

OPERATING VOLTAGE: 600 VDC (Sea level)
CURRENT: 3 amps
VOLTAGE DROP: Will not exceed 30 MV at rated current
TEMPERATURE: To 400°F

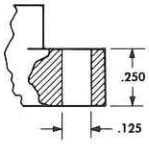
MATERIALS

INSULATOR: Diallyl Phthalate per MIL-M-14, type SDG, color, green
CONTACTS: Phos. bronze, plating .000030 over .000050 nickel per MIL-G-45204, type II

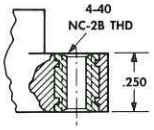


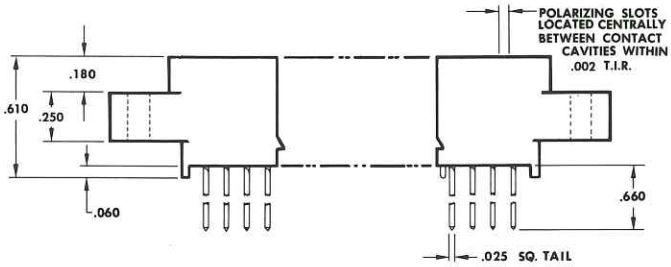
MOUNTING STYLES

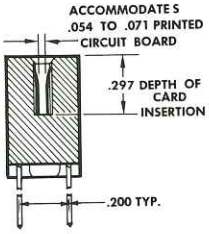
*—3 CLEARANCE HOLE



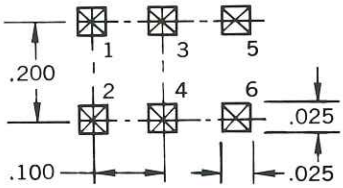
*—5 THREADED BUSHING







WIRE WRAP PATTERN



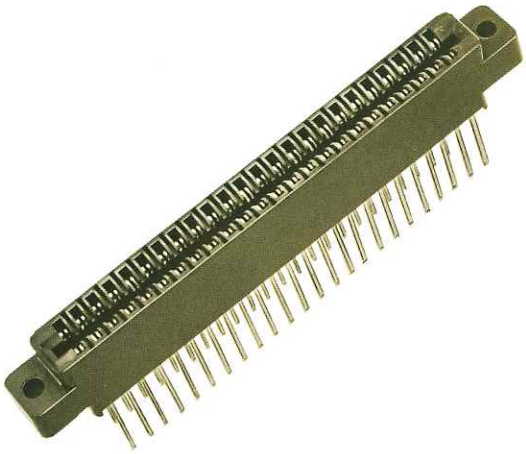
PLASTIC POLARIZING KEY

PART NO. 091-0060-000

NUMBER OF CONTACTS	PART NUMBER	DIMENSIONS						CONTACT I.D.
		A ±.005	B ±.005	C ±.005	D ±.005	E ±.005	F ±.005	
18/36	2VH18/1JND*	2.635	2.375	1.900	1.700	2.060	1.950	1 thru 36
20/40	2VH20/1JND*	2.835	2.575	2.100	1.900	2.260	2.150	1 thru 40
22/44	2VH22/1JND*	3.035	2.775	2.300	2.100	2.460	2.350	1 thru 44
25/50	2VH25/1JND*	3.335	3.075	2.600	2.400	2.760	2.650	1 thru 50
28/56	2VH28/1JND*	3.635	3.375	2.900	2.700	3.060	2.950	1 thru 56
30/60	2VH30/1JND*	3.835	3.575	3.100	2.900	3.260	3.150	1 thru 60
31/62	2VH31/1JND*	3.935	3.675	3.200	3.000	3.360	3.250	1 thru 62
36/72	2VH36/1JND*	4.435	4.175	3.700	3.500	3.860	3.750	1 thru 72
40/80	2VH40/1JND*	4.835	4.575	4.100	3.900	4.260	4.150	1 thru 80
43/86	2VH43/1JND*	5.135	4.875	4.400	4.200	4.560	4.450	1 thru 86
44/88	2VH44/1JND*	5.235	4.975	4.500	4.300	4.660	4.550	1 thru 88
49/98	2VH49/1JND*	5.735	5.475	5.000	4.800	5.160	5.050	1 thru 98
50/100	2VH50/1JND*	5.835	5.575	5.100	4.900	5.260	5.150	1 thru 100

*ADD MOUNTING STYLE NUMBER FROM ABOVE. EXAMPLE: 2VH18/1JND 5

.125" CONTACT CENTERS / .093 AND .062" BOARD THICKNESS
.025" WIRE WRAP TERMINATIONS (DOUBLE ROW) BETWEEN CONTACT POLARIZING

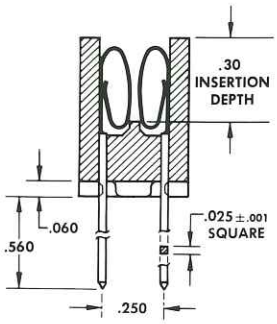


CHARACTERISTICS

OPERATING VOLTAGE: 800 VDC (sea level)
CURRENT: 3 amps
VOLTAGE DROP: Will not exceed 30 MV at rated current
TEMPERATURE: To 400°F

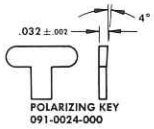
MATERIALS

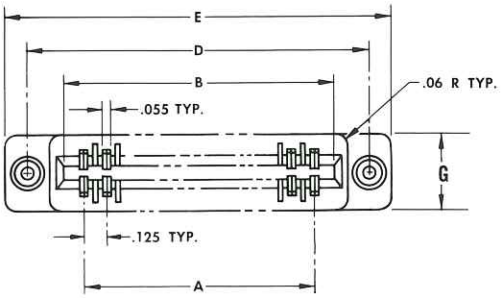
INSULATOR: Diallyl Phthalate per MIL-P-19833, Type GDI-30 or MIL-M-14, Type SDG color: green
CONTACTS: Copper alloy per QQ-B-750 or QQ-C-533. Plated .000031 min gold per MIL-G-45204, Type II

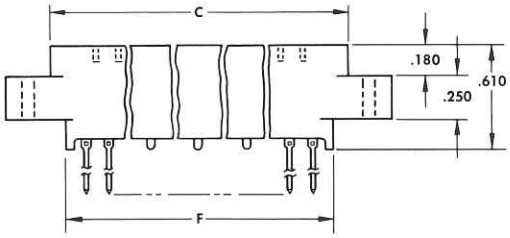


PLASTIC POLARIZING KEY

PART NO. 091-0024-000





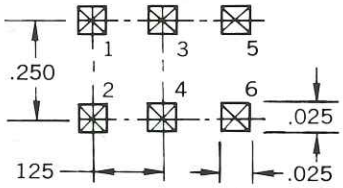


MOUNTING STYLES

*—5
.125" DIA.
CLEARANCE
HOLE

*—3
4-40-2B
THREADED
BUSHING

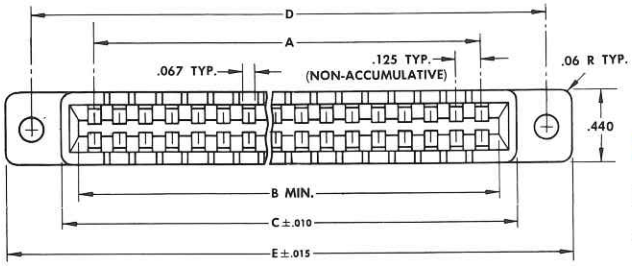
WIRE WRAP PATTERN



PART NUMBER		NUMBER OF	DIMENSIONS						G	
.093 CARD	.062 CARD	CONTACTS	A	B	C	D	E	F	.062	.093
2VH6/1DND*	2VH6/1CND*	6/12	.625	.875	1.035	1.295	1.555	.875	.370	.406
2VH10/1DND*	2VH10/1CND*	10/20	1.125	1.375	1.535	1.795	2.055	1.375	.370	.406
2VH14/1DND*	2VH14/1CND*	14/28	1.625	1.875	2.035	2.295	2.555	1.875	.370	.406
2VH15/1DND*	2VH15/1CND*	15/30	1.750	2.000	2.160	2.420	2.680	2.000	.370	.406
2VH18/1DND*	2VH18/1CND*	18/36	2.125	2.375	2.535	2.795	3.055	2.375	.370	.406
2VH22/1DND*	2VH22/1CND*	22/44	2.625	2.875	3.035	3.295	3.555	2.875	.370	.406
2VH28/1DND*	2VH28/1CND*	28/56	3.375	3.625	3.875	4.045	4.305	3.625	.370	.406
2VH31/1DND*	2VH31/1CND*	31/62	3.750	4.000	4.160	4.420	4.680	4.000	.370	.406
2VH35/1DND*	2VH35/1CND*	35/70	4.250	4.500	4.660	4.920	5.180	4.500	.370	.406
2VH40/1DND*	2VH40/1CND*	40/80	4.875	5.125	5.285	5.545	5.805	5.125	.370	.406
2VH44/1DND*	2VH44/1CND*	44/88	5.375	5.625	5.785	6.045	6.305	5.625	.370	.406
2VH49/1DND*	2VH49/1CND*	49/98	6.000	6.250	6.410	6.670	6.930	6.250	.370	.406
2VH50/1DND*	2VH50/1CND*	50/100	6.125	6.375	6.535	6.795	7.045	6.375	.370	.406

*ADD MOUNTING STYLE TO PART NUMBER. EXAMPLE: 2VH6/1CND5

.125" CONTACT CENTERS / .062" BOARD THICKNESS
PIERCED & DIP SOLDER TERMINATIONS (DOUBLE ROW) BETWEEN CONTACT POLARIZING

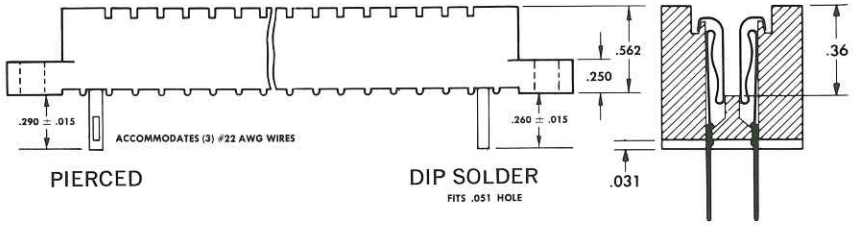


CHARACTERISTICS

OPERATING VOLTAGE: 800 VDC (sea level)
CURRENT: 5 amps
VOLTAGE DROP: Will not exceed 30MV at rated current
TEMPERATURE: To 400°F

MATERIALS

INSULATOR: Diallyl Phthalate per MIL-P-19833, Type GDI-30
MIL-M-14, Type SDG, color: green
CONTACTS: Beryllium copper per QQ-C-533. Plated .000031 Min gold per MIL-G-45204, Type II



PIERCED

DIP SOLDER
FITS .051 HOLE

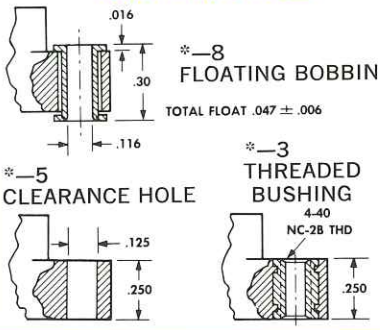
PLASTIC POLARIZING KEY

PART NO. 091-0034-000

NUMBER OF CONTACTS	PART NUMBERS		DIMENSIONS					CONTACT I.D.	
	PIERCED	DIP SOLDER	A DIM ±.005	B +.015 −.000	C ±.010	D ±.005	E ±.015	LETTERS (OMIT G, I, O & Q)	NUMBERS
6/12	2VH6/1CN*	2VH6/1CV*	.625	.825	.950	1.250	1.550	A thru F	1 thru 6
10/20	2VH10/1CN*	2VH10/1CV*	1.125	1.325	1.450	1.750	2.050	A thru L	1 thru 10
15/30	2VH15/1CN*	2VH15/1CV*	1.750	1.950	2.075	2.375	2.675	A thru S	1 thru 15
18/36	2VH18/1CN*	2VH18/1CV*	2.125	2.325	2.450	2.750	3.050	A thru V	1 thru 18
22/44	2VH22/1CN*	2VH22/1CV*	2.625	2.825	2.950	3.250	3.550	A thru Z +a thru f	1 thru 22
28/56	2VH28/1CN*	2VH28/1CV*	3.375	3.575	3.700	4.000	4.300	A thru Z	1 thru 28
31/62	2VH31/1CN*	2VH31/1CV*	3.750	3.950	4.075	4.375	4.675	A thru Z +a thru k	1 thru 31
36/72	2VH36/1CN*	2VH36/1CV*	4.375	4.575	4.700	5.000	5.300	A thru Z +a thru r	1 thru 36

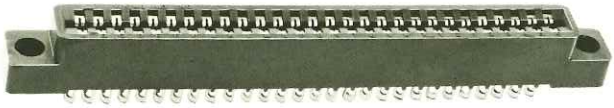
*ADD MOUNTING STYLE TO PART NUMBER FROM ABOVE. EXAMPLE: 2VH6/1CN5

MOUNTING STYLES



.125" CONTACT CENTERS / .062" BOARD THICKNESS PIERCED & DIP SOLDER TERMINATIONS (28 CONTACTS) (SINGLE ROW)

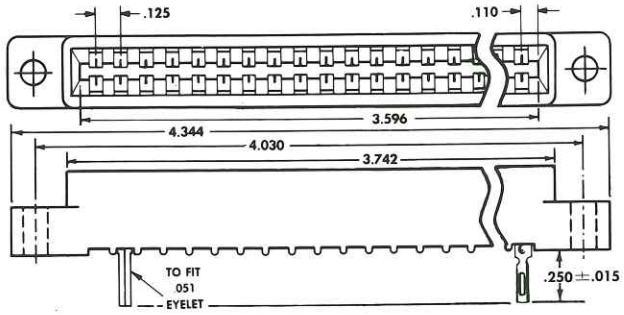
NOTE: POLARIZING KEYS REPLACE CONTACTS



CHARACTERISTICS

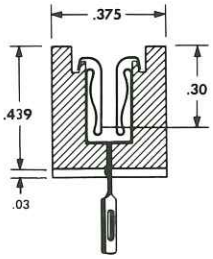
OPERATING VOLTAGE: 800 VDC
CURRENT: 3 amps
VOLTAGE DROP: will not exceed 30 MV at rated current
TEMPERATURE: to 400°F

MATERIALS : SAME AS ABOVE.



DIP SOLDER

PIERCED



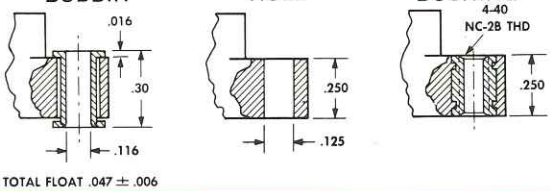
POLARIZING KEY (COPPER)

PART NO. 091-0014-000

NUMBER OF CONTACTS	PART NUMBER		CONTACT IDENTIFICATION LETTERS (OMIT G, I, O & Q)
	PIERCED	DIP SOLDER	
28	VH28/1CL*	VH28/1CK*	A thru Z + 1 thru 6

*ADD MOUNTING STYLE NUMBER. EXAMPLE: VH28/1CL5

MOUNTING STYLES



.150" CONTACT CENTERS / .062" BOARD THICKNESS
(210 CONTACTS) PIERCED, DIP SOLDER & RIGHT ANGLE DIP SOLDER TERMINATIONS (DOUBLE ROW)

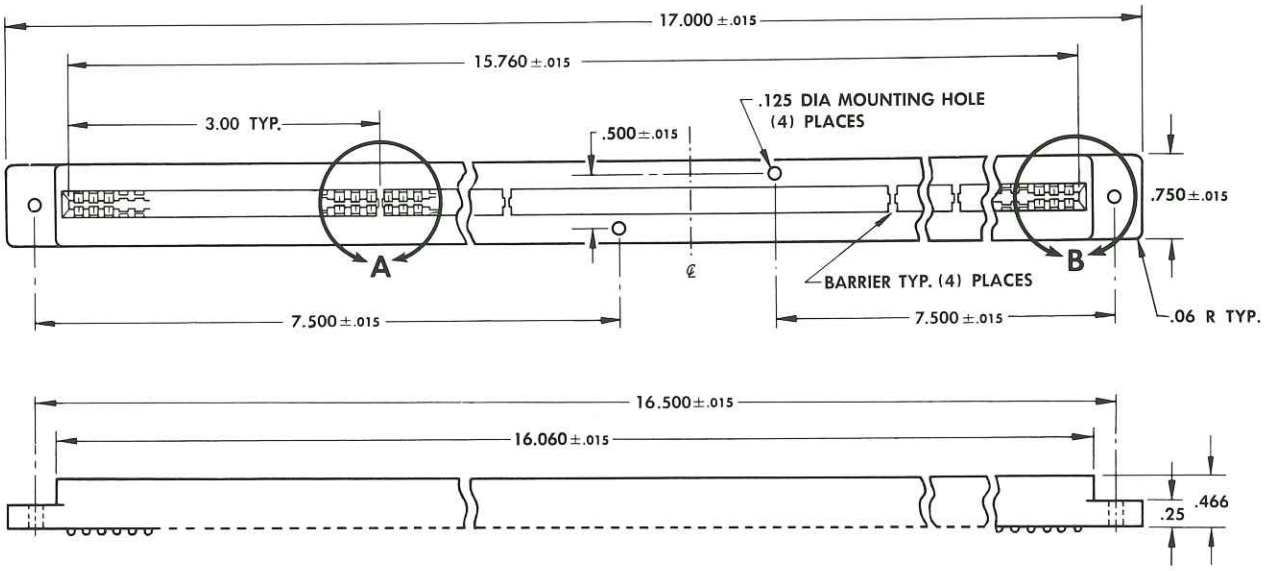
SUBSTITUTE CONTACT WITH POLARIZING KEY

CHARACTERISTICS

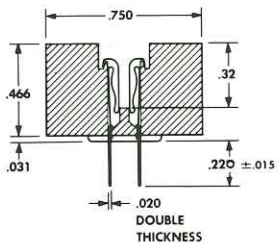
VOLTAGE RATING: 1500 VDC (sea level)
CURRENT: 5 amps
VOLTAGE DROP: Will not exceed 30 MV at rated current
TEMPERATURE: to 400°F

MATERIALS

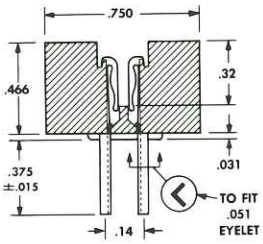
INSULATOR: Diallyl Phthalatate per MIL-P-19833, Type GDI-30, color: brown
CONTACTS: Copper alloy per QQ-B-750 or QQ-C-533. Plated .000031 min gold per MIL-G-45204, Type II



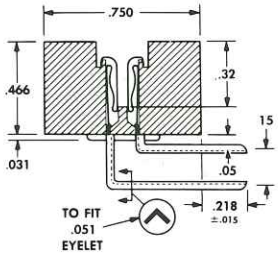
TERMINAL STYLES



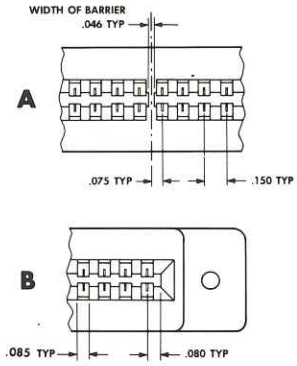
PIERCED



DIP SOLDER (STRAIGHT)

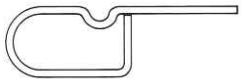


DIP SOLDER (RIGHT ANGLE)



POLARIZING KEY (COPPER)

PART NO. 091-0020-000

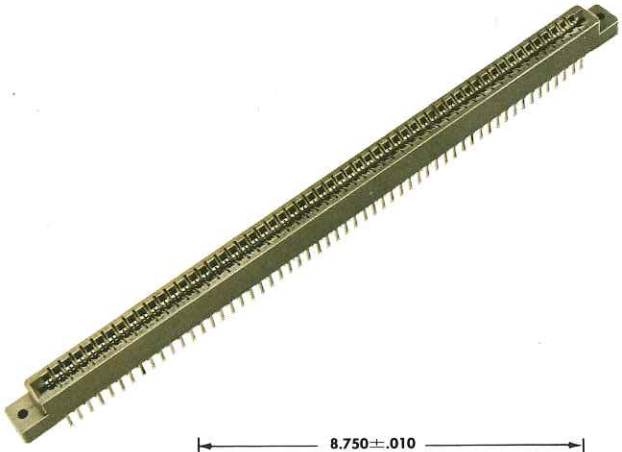


NUMBER OF CONTACTS	PART NUMBERS Contact Type		
	Pierced	Dip Solder (Straight)	Dip Solder Right Angle
210	VH105/7HN5	VH105/7HV5	VH105/7HY5

CONTACT IDENTIFICATION TERMINAL SIDE

106 ···· 110 ···· 115 ···· 120 ···· 125	···· 130 ···· 135 ···· 140 ···· 145	···· 150 ···· 155 ···· 160 ···· 165 ···· 170	···· 175 ···· 180 ···· 185 ···· 190	···· 195 ···· 200 ···· 205 ···· 210
	BARRIER	BARRIER	BARRIER	BARRIER
1 ···· 5 ···· 10 ···· 15 ···· 20	···· 25 ···· 30 ···· 35 ···· 40	···· 45 ···· 50 ···· 55 ···· 60 ···· 65	···· 70 ···· 75 ···· 80 ···· 85	···· 90 ···· 95 ···· 100 ···· 105

.150″ CONTACT CENTER / .062″ BOARD THICKNESS
(56 CONTACTS) DIP SOLDER & PIERCED TERMINATIONS
(DOUBLE ROW) BETWEEN CONTACT POLARIZING

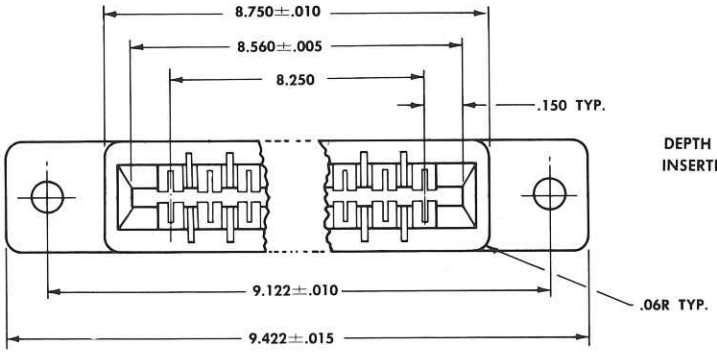


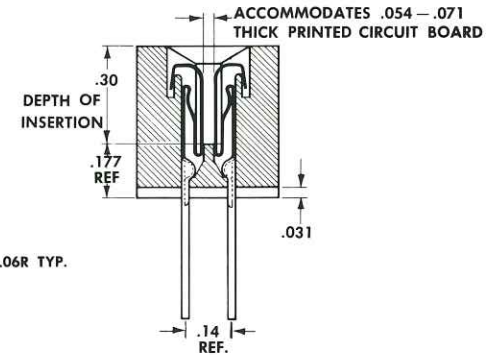
CHARACTERISTICS

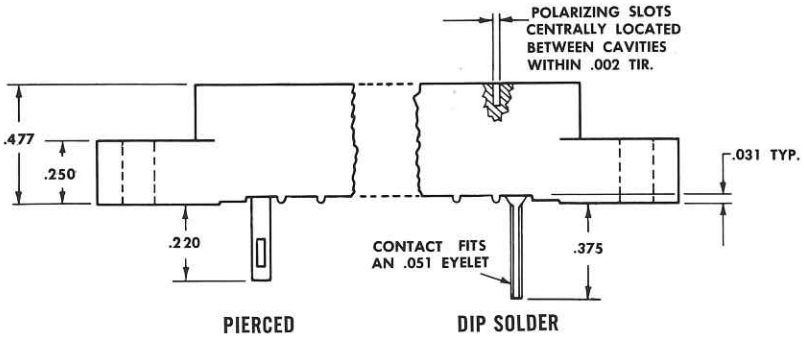
VOLTAGE RATING: 1500 VDC (sea level)
CURRENT: 5 amps
VOLTAGE DROP: Will not exceed 30 MV at rated current
TEMPERATURE: to 400°F

MATERIALS

INSULATOR: Glass Filled ALKYD, color: blue
CONTACTS: Copper alloy, per QQ-B-750 or QQ-C-533
.000030 Gold plating per MIL-G-45204 type II



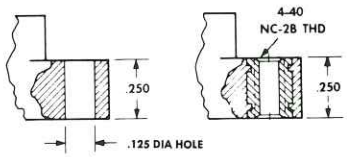




MOUNTING STYLES

*–5
CLEARANCE
HOLE

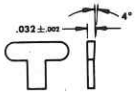
*–3
THREADED
BUSHING



NUMBER OF CONTACTS	PART NUMBERS CONTACT TYPE	
	PIERCED	DIP SOLDER
28/56	2VH56/21HN*	2VH56/21HV*

*ADD MOUNTING STYLE TO PART NUMBER.

PLASTIC POLARIZING KEY

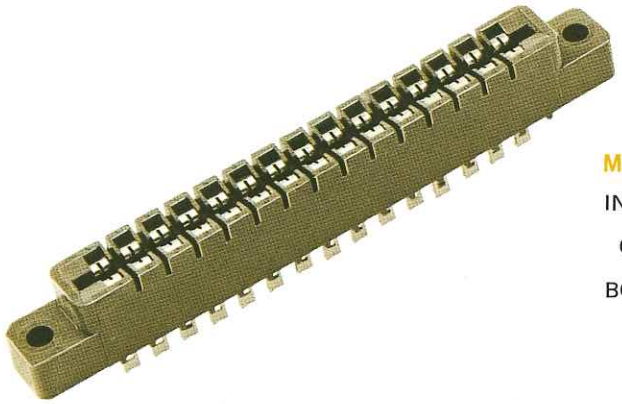


PART NO. 091-0024-000

CONTACT IDENTIFICATION
TERMINAL SIDE

| | | |

.156" CONTACT CENTER / .062" BOARD THICKNESS
PIERCED & DIP SOLDER TERMINATIONS (SINGLE ROW) BETWEEN CONTACT POLARIZING

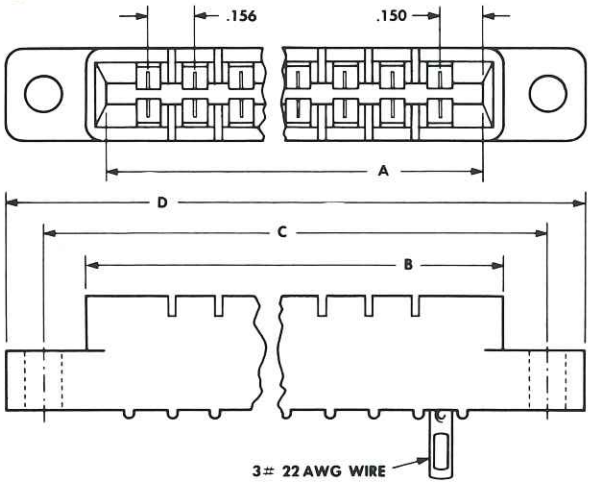


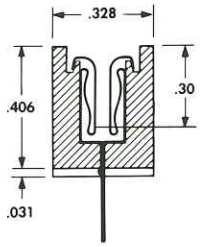
CHARACTERISTICS

VOLTAGE RATING: 1800 VDC (sea level)
CURRENT: 5 amps
VOLTAGE DROP: Will not exceed 30 MV at rated current
TEMPERATURE: to 400°F

MATERIALS

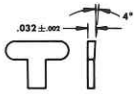
INSULATOR: Diallyl Phthalate per MIL-P-19833, Type GDI-30 or MIL-M-14, Type SDG color: green
CONTACTS: Copper alloy per QQ-B-750 or QQ-C-533. Plated .000031 min gold per MIL-G-45204, Type II
BOBBINS & BUSHINGS: Stainless Steel



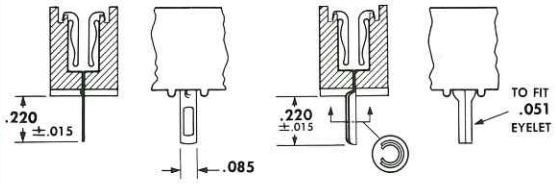


PLASTIC POLARIZING KEY

PART NO. 091-0024-000



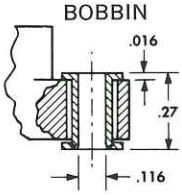
TERMINAL STYLES



PIERCED DIP SOLDER

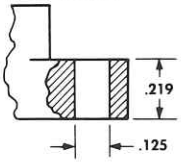
MOUNTING STYLES

*—8 FLOATING BOBBIN

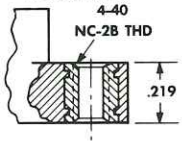


TOTAL FLOAT .047 ± .006

*—5 CLEARANCE HOLE



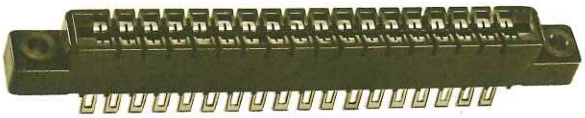
*—3 THREADED BUSHING



NUMBER OF CONTACTS	PART NUMBERS CONTACT TYPE		DIMENSIONS					CONTACT IDENTIFICATION TERMINAL SIDE
	PIERCED	DIP SOLDER	A	B	C	D (FLOAT)	D CLEARANCE HOLE & THREADED BUSHING	(LETTERS: OMIT G, I, O, Q)
6	2VH6/1AB*	2VH6/1AK*	1.078	1.218	1.531	1.844	1.781	1 thru 6 + A thru F
10	2VH10/1AB*	2VH10/1AK*	1.703	1.843	2.156	2.469	2.406	1 thru 10 + A thru L
15	2VH15/1AB*	2VH15/1AK*	2.484	2.624	2.937	3.250	3.187	1 thru 15 + A thru S
18	2VH18/1AB*	2VH18/1AK*	2.953	3.093	3.406	3.719	3.656	1 thru 18 + A thru V
22	2VH22/1AB*	2VH22/1AK*	3.578	3.717	4.031	4.344	4.281	1 thru 22 + A thru Z

*ADD MOUNTING STYLE TO PART NUMBER. EXAMPLE: 2VH6/1AB5

.156" CONTACT CENTERS / .062" BOARD THICKNESS
PIERCED, DIP SOLDER NOTCHED TERMINATIONS (DOUBLE ROW) BETWEEN CONTACT POLARIZING

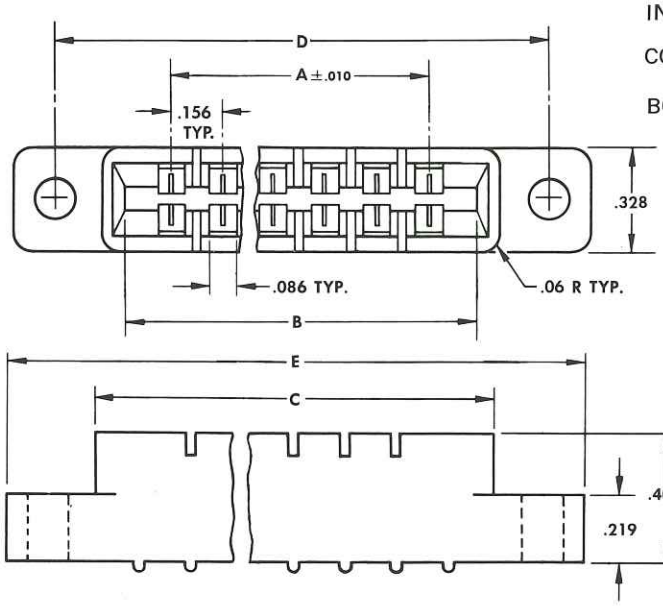


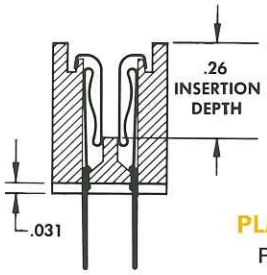
CHARACTERISTICS

VOLTAGE RATING: 1800 VDC (sea level)
CURRENT: 5 amps
VOLTAGE DROP: Will not exceed 30 MV at rated current
TEMPERATURE: to 400°F

MATERIALS

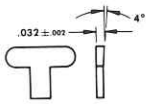
INSULATOR: Diallyl Phthalate per MIL-P-19833 Type GDI-30 or MIL-M-14, Type SDG, color: green
CONTACTS: Copper alloy per QQ-B-750 or QQ-C-533. Plated .000031 min gold per MIL-G-45204, Type II
BOBBINS & BUSHINGS: Stainless steel



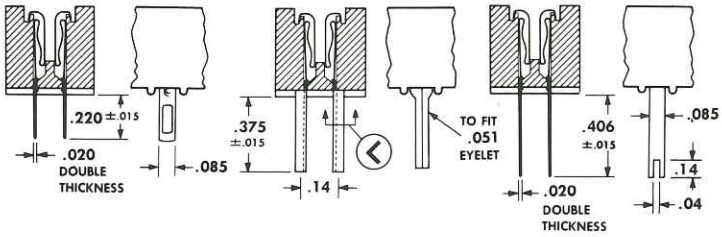


PLASTIC POLARIZING KEY

PART NO. 091-0024-000



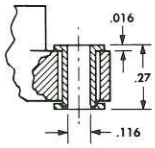
TERMINAL STYLES



PIERCED DIP SOLDER NOTCHED

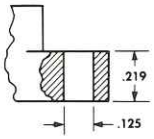
MOUNTING STYLES

*—8 FLOATING BOBBIN

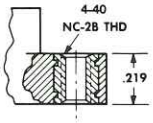


TOTAL FLOAT .047 ± .006

*—5 CLEARANCE HOLE



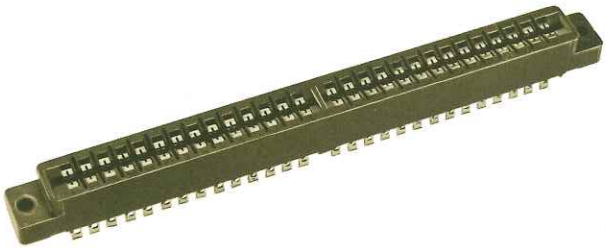
*—3 THREADED BUSHING



NUMBER OF CONTACTS	PART NUMBERS CONTACT STYLE			DIMENSIONS					CONTACT I.D. TERMINAL SIDE
				A	B	C	D		
	PIERCED	DIP SOLDER	NOTCHED				FLOAT	CLEARANCE HOLE & TAPPED INSERT	OMIT G, I, O, Q
6/12	2VH6/1AN*	2VH6/1AV*	2VH6/1AS*	1.078	1.218	1.531	1.844	1.781	1 THRU 6 A THRU F
10/20	2VH10/1AN*	2VH10/1AV*	2VH10/1AS*	1.703	1.843	2.156	2.469	2.406	1 THRU 10 A THRU L
15/30	2VH15/1AN*	2VH15/1AV*	2VH15/1AS*	2.484	2.624	2.937	3.250	3.187	1 THRU 15 A THRU S
18/36	2VH18/1AN*	2VH18/1AV*	2VH18/1AS*	2.953	3.093	3.406	3.719	3.656	1 THRU 18 A THRU V
22/44	2VH22/1AN*	2VH22/1AV*	2VH22/1AS*	3.578	3.717	4.031	4.344	4.281	1 THRU 22 A THRU Z

*ADD MOUNTING STYLE TO PART NUMBER. EXAMPLE: 2VH6/1AN5

.156" CONTACT CENTERS / .062" BOARD THICKNESS
(CENTER BARRIER) PIERCED, DIP SOLDER & NOTCHED TERMINATIONS (DOUBLE ROW) BETWEEN CONTACT POLARIZING



CHARACTERISTICS

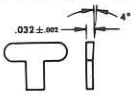
VOLTAGE RATING: 1500 VDC (sea level)
CURRENT: 5 amps
VOLTAGE DROP: Will not exceed 30 MV at rated current
TEMPERATURE: to 400°F

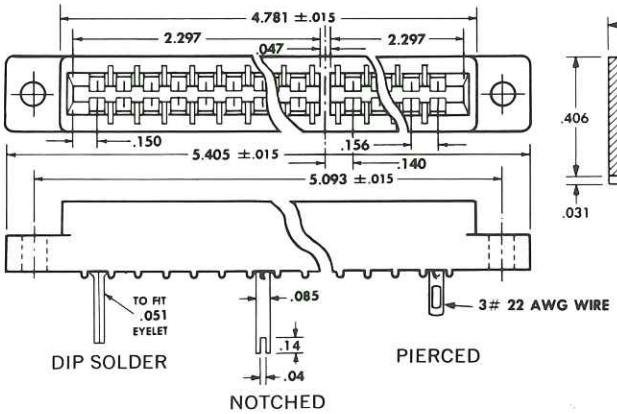
MATERIALS

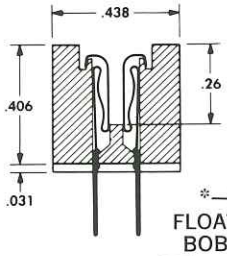
INSULATOR: Diallyl Phthalate per MIL-P-19833, Type GDI-30 or MIL-M-14, Type SDG-F, color: green
CONTACTS: Copper alloy per QQ-B-750 or QQ-C-533. Plated .000031 min gold per MIL-G-45204, Type II

PLASTIC POLARIZING KEY

PART NO. 091-0024-000

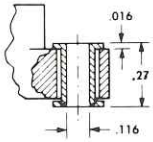




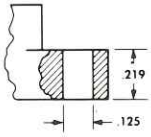


MOUNTING STYLES

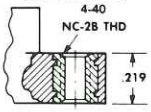
*—8 FLOATING BOBBIN



*—5 CLEARANCE HOLE



*—3 THREADED BUSHING



NUMBER OF CONTACTS	PART NUMBERS CONTACT TYPE			CONTACT IDENTIFICATION TERMINATION SIDE
	PIERCED	DIP SOLDER	NOTCHED	
56	2VH28/1AN*	2VH28/1AV*	2VH28/1AS*	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 A B C D E F H J K L M N P R S T U V W X Y Z AA BB CC DD EE FF

*ADD MOUNTING STYLE TO PART NUMBER. EXAMPLE: 2VH28/1AN5

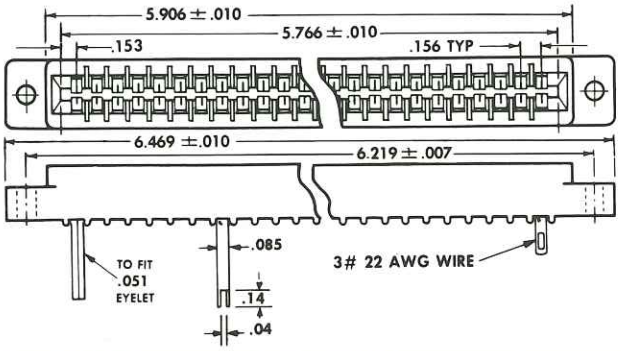
.156" CONTACT CENTERS / .062" BOARD THICKNESS
PIERCED, DIP SOLDER NOTCHED TERMINATIONS (DOUBLE ROW) BETWEEN CONTACT POLARIZING

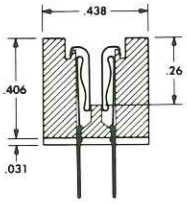
CHARACTERISTICS

VOLTAGE RATING: 1500 VDC (sea level)
CURRENT: 5 amps
VOLTAGE DROP: Will not exceed 30 MV at rated current
TEMPERATURE: to 400°F

MATERIALS

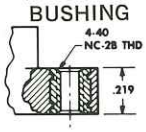
INSULATOR: SAME AS ABOVE
CONTACTS:



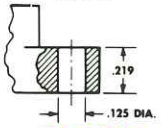


MOUNTING STYLES

*—3 THREADED BUSHING



*—5 CLEARANCE HOLE



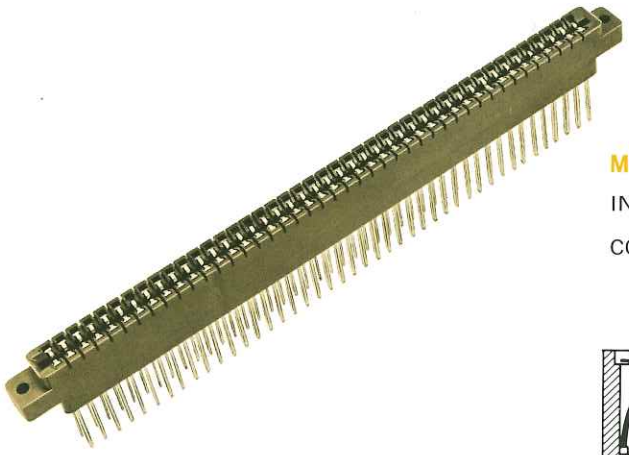
PLASTIC POLARIZING KEY

PART NO. 091-0024-000

NUMBER OF CONTACTS	PART NUMBERS CONTACT TYPE			CONTACT IDENTIFICATION TERMINAL SIDE (LETTERS: OMIT G, I, O, Q)	
	PIERCED	DIP SOLDER	NOTCHED		
72	2VH36/1AN*	2VH36/1AV*	2VH36/1AS*	A THRU Z + $\overline{A}$ THRU $\overline{R}$	1 THRU 36

*ADD MOUNTING STYLE TO PART NUMBER. EXAMPLE: 2VH36/1AN3

.156″ CONTACT CENTERS / .062″ BOARD THICKNESS
BIFURCATED WIRE WRAP TERMINATIONS (DOUBLE ROW) BETWEEN CONTACT POLARIZING

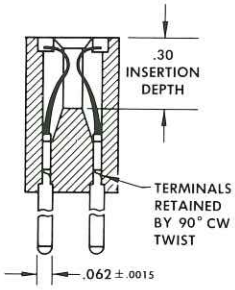


CHARACTERISTICS

OPERATING VOLTAGE: 1800 VDC (sea level)
CURRENT: 5 amps
VOLTAGE DROP: Will not exceed 30 MV at rated current
TEMPERATURE: to 400°F

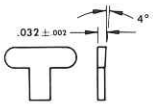
MATERIALS

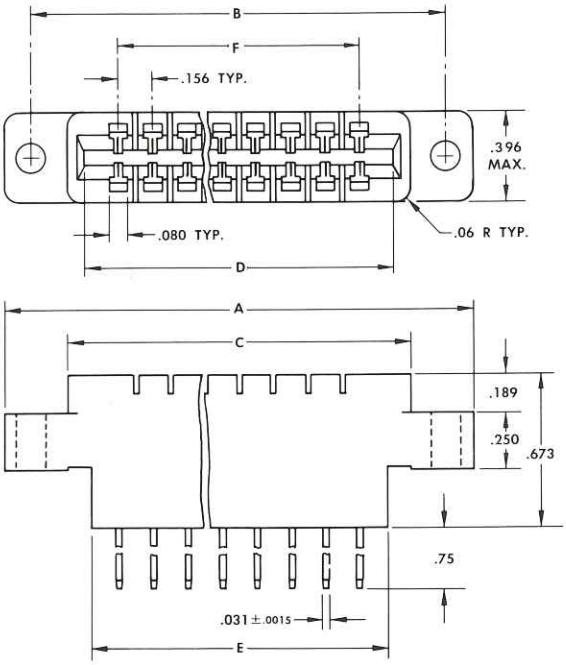
INSULATOR: Diallyl Phthalate per MIL-M-14, Type SDG or MIL-P-19833, Type GDI-30, color: green
CONTACTS: Copper alloy, .000030 min. gold over nickel strike



PLASTIC POLARIZING KEY

PART NO. 091-0024-000



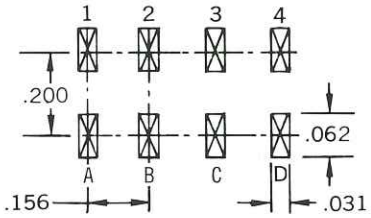


MOUNTING STYLES

*—5
.125 DIA.
CLEARANCE
HOLE

*—3
4-40-2B
THREADED
BUSHING

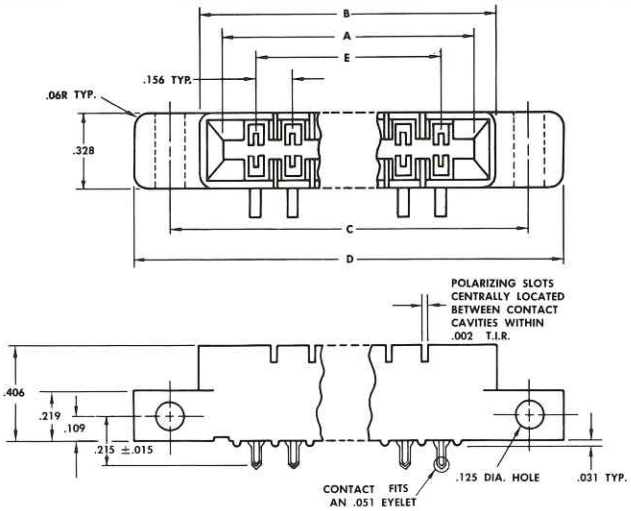
WIRE WRAP PATTERN



NUMBER OF CONTACTS	PART NUMBER	DIMENSIONS ±.005						CONTACT IDENTIFICATION (LETTERS: OMIT G, I, O, Q)	
		A	B	C	D	E	F		
6/12	2VH6/1ANE*	1.785	1.531	1.218	1.078	1.030	.780	1 thru 6	A thru F
10/20	2VH10/1ANE*	2.409	2.156	1.843	1.703	1.654	1.404	1 thru 10	A thru L
15/30	2VH15/1ANE*	3.189	2.937	2.624	2.484	2.434	2.184	1 thru 15	A thru S
18/36	2VH18/1ANE*	3.567	3.406	3.093	2.953	2.902	2.652	1 thru 18	A thru V
22/44	2VH22/1ANE*	4.281	4.031	3.717	3.578	3.625	3.276	1 thru 22	A thru Z
28/56	2VH28/1ANE*	5.217	4.967	4.653	4.514	4.462	4.212	1 thru 28	A thru Z + $\overline{A}$ thru $\overline{F}$
31/62	2VH31/1ANE*	5.685	5.435	5.121	4.982	4.930	4.680	1 thru 31	A thru Z + $\overline{A}$ thru $\overline{K}$
40/80	2VH40/1ANE*	7.089	6.839	6.525	6.386	6.334	6.084	1 thru 40	A thru Z + $\overline{A}$ thru $\overline{V}$
43/86	2VH43/1ANE*	7.557	7.307	6.993	6.854	6.802	6.552	1 thru 43	A thru Z + $\overline{A}$ thru $\overline{Y}$

*ADD MOUNTING STYLE TO PART NUMBER. EXAMPLE: 2VH6/1ANE5

.156" CONTACT CENTERS / .062" BOARD THICKNESS
RIGHT ANGLE-DIP SOLDER TERMINATIONS (SINGLE ROW) BETWEEN CONTACT POLARIZATION

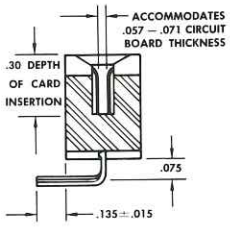


CHARACTERISTICS

VOLTAGE RATING: 1800 VDC (sea level)
CURRENT: 5 amps
VOLTAGE DROP: Will not exceed 30 MV at rated current
TEMPERATURE: to 400°F

MATERIALS

INSULATOR: Diallyl Phthalate per MIL-M-14, Type SDG or MIL-P-19833, Type GDI-30, color: green
CONTACTS: Copper alloy, Per QQ-B-750 or QQ-C-533, .000030 min. gold, Per MIL-G-45204, Type II

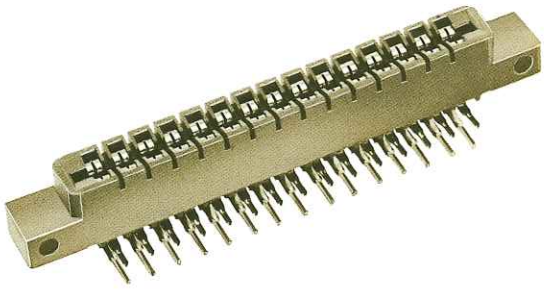


PLASTIC POLARIZING KEY

PART NO. 091-0024-000

NUMBER CONTACTS	PART NUMBERS	DIMENSIONS ±.005					CONTACT IDENTIFICATION LETTERS: OMIT G, I, O, Q	
		A	B	C	D	E		
6	2VH6/1AR15	1.078	1.218	1.531	1.781	.780	1 THRU 6	A THRU F
10	2VH10/1AR15	1.703	1.843	2.156	2.406	1.404	1 THRU 10	A THRU L
15	2VH15/1AR15	2.484	2.624	2.937	3.187	2.184	1 THRU 15	A THRU S
18	2VH18/1AR15	2.953	3.093	3.406	3.656	2.652	1 THRU 18	A THRU V
22	2VH22/1AR15	3.578	3.717	4.031	4.281	3.276	1 THRU 22	A THRU Z

.156" CONTACT CENTERS / .062" BOARD THICKNESS
RIGHT ANGLE-DIP SOLDER TERMINATIONS (DOUBLE ROW) BETWEEN CONTACT POLARIZATION



CHARACTERISTICS

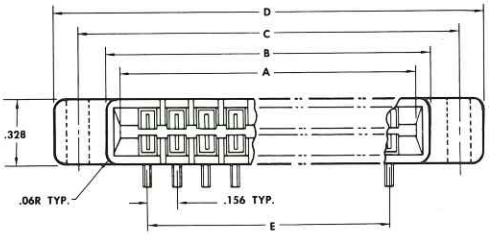
VOLTAGE RATING: 1800 VDC (sea level)
CURRENT: 5 amps
VOLTAGE DROP: Will not exceed 30 MV at rated current
TEMPERATURE: to 400°F

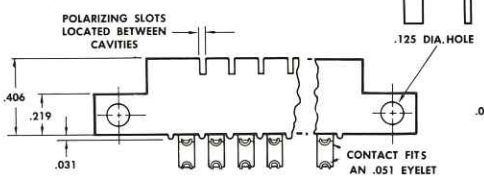
MATERIALS

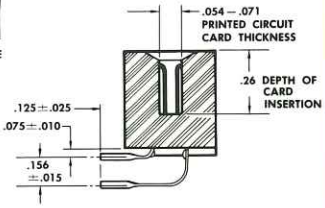
INSULATOR: Diallyl Phthalate per MIL-M-14, Type SDG or MIL-P-19833, Type GDI-30, color: green
CONTACTS: Copper alloy, Per QQ-B-750 or QQ-C-533, .000030 min. gold, Per MIL-G-45204, Type II

PLASTIC POLARIZING KEY

PART NO. 091-0024-000







NUMBER OF CONTACTS	PART NUMBER	DIMENSIONS					CONTACT IDENTIFICATION LETTERS: (OMIT G, I, O & Q)	
		A±.005	B±.005	C±.005	D±.005	E±.010		
6/12	2VH6/1AKC15	1.078	1.218	1.531	1.781	.780	1 thru 6	A thru F
10/20	2VH10/1AKC15	1.703	1.843	2.156	2.406	1.404	1 thru 10	A thru L
15/30	2VH15/1AKC15	2.484	2.624	2.937	3.187	2.184	1 thru 15	A thru S
18/36	2VH18/1AKC15	2.953	3.903	3.406	3.656	2.652	1 thru 18	A thru V
22/44	2VH22/1AKC15	3.578	3.717	4.031	4.281	3.276	1 thru 22	A thru Z

.156" CONTACT CENTERS / .062" BOARD THICKNESS
TAPERED PIN TERMINATIONS (DOUBLE ROW)
BETWEEN CONTACT POLARIZING

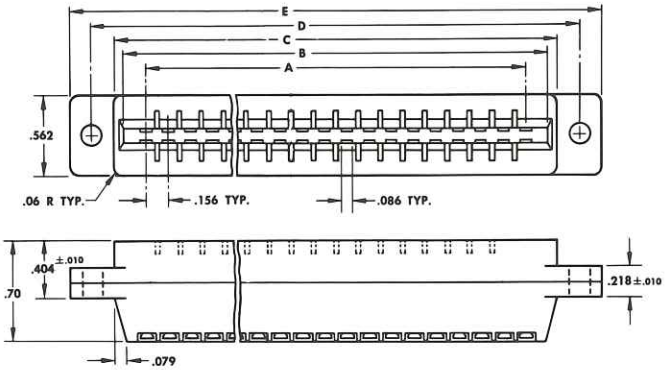
CHARACTERISTICS

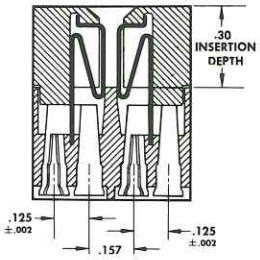
VOLTAGE RATING: 1500 VDC (sea level)
CURRENT: 5 amps
VOLTAGE DROP: Will not exceed 30 MV at rated current
TEMPERATURE: to 400°F

MATERIALS

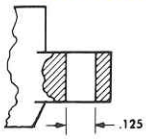
INSULATOR: Diallyl Phthalate per MIL-M-14, Type SDG color: blue

CONTACTS: Copper alloy per QQ-C-533. Plated .000030 min gold per MIL-G-45204, Type II





MOUNTING STYLES



*—5
CLEARANCE HOLE

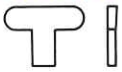
*—3
THREADED BUSHING

4-40-2B THD.

NUMBER OF CONTACTS	PART NUMBER	DIMENSIONS A	B	C	D	E	CONTACT IDENTIFICATION LETTERS: OMIT G, I, O, Q	
15/30	2VH15/15AW*	2.484	2.624	2.937	3.250	2.184	1 thru 15	A thru S
18/36	2VH18/15AW*	2.953	3.093	3.406	3.719	2.652	1 thru 18	A thru V
22/44	2VH22/15AW*	3.578	3.717	4.031	4.344	3.276	1 thru 22	A thru Z
27/54	2VH27/15AW*	4.359	4.498	4.812	5.125	4.056	1 thru 27, A thru Z + $\overline{A}$ thru $\overline{E}$	

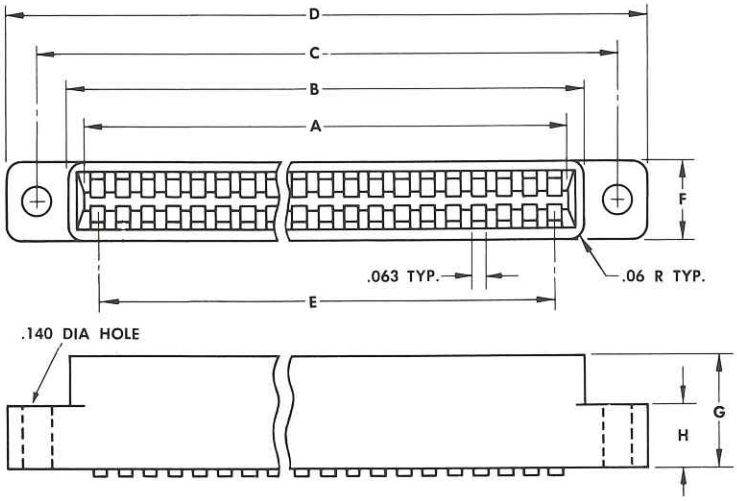
*ADD MOUNTING STYLE TO PART NUMBER. EXAMPLE: 2VH15/15AW5

PLASTIC POLARIZING KEY



PART NO.
091-0024-000

.125" / .156" CONTACT CENTERS / .062" BOARD THICKNESS
TAPERED PIN TERMINATIONS (SINGLE ROW)



CHARACTERISTICS

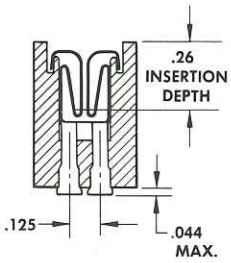
VOLTAGE RATING: 31 & 41 contact — 1000V RMS (sea level)
22 contact — 1500V RMS (sea level)

CURRENT: 5 amps TEMPERATURE: To 400°F

MATERIALS

CONTACTS: Beryllium copper with .00003 gold over .0005-.0006 silver plating.

INSULATOR: Diallyl Phthalate per MIL-M-14, Type SDG, color: blue.



POLARIZING KEY

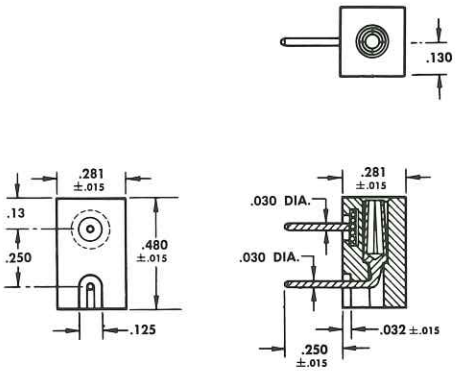
22 contact ——— 091-0024-000 (between contact)
31 & 41 contact — 091-0030-000 (replace contact).

NOTE: 2VH22/15AH6 connector is available with "between contact" polarizing. VH31/15CH6 & VH41/15CH16 available only with "contact cavity" polarizing.

NUMBER OF CONTACTS	PART NUMBER	CONTACT SPACING	A	B	C	D	E	F	G	H	CONTACT IDENTIFICATION
22	2VH22/15AH6	.156	3.596	3.781	4.031	4.281	3.281	.437	.573	.401	1 THRU 22
31	VH31/15CH6	.125	3.875	4.000	4.250	4.500	3.750	.437	.573	.401	1 THRU 31
41	VH41/15CH6	.125	5.125	5.250	5.609	5.906	5.000	.406	.573	.323	1 THRU 41

TEST POINT CONNECTORS (ACCEPTS .080" TEST PROBE)

SINGLE CONTACT

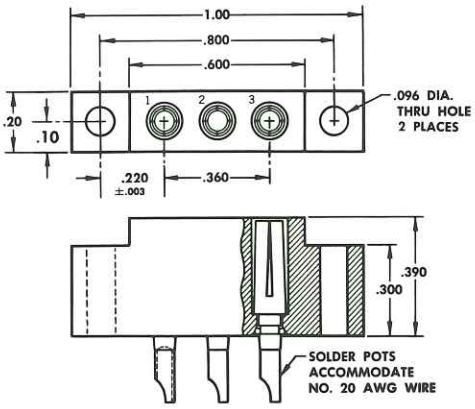


MATERIALS: DIALLYL PHTHALATE PER MIL-P-19833, COLOR: GREEN

PLATING: .000030 GOLD OVER SILVER

PART NO. 000400-0080

3 CONTACTS

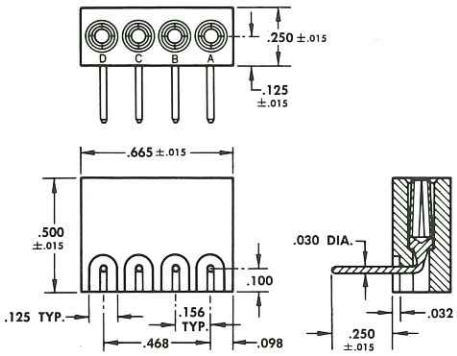


MATERIALS: DIALLYL PHTHALATE PER MIL-P-19833, COLOR: GREEN

PLATING: .000030 GOLD OVER SILVER

PART NO. 000400-0072

4 CONTACTS



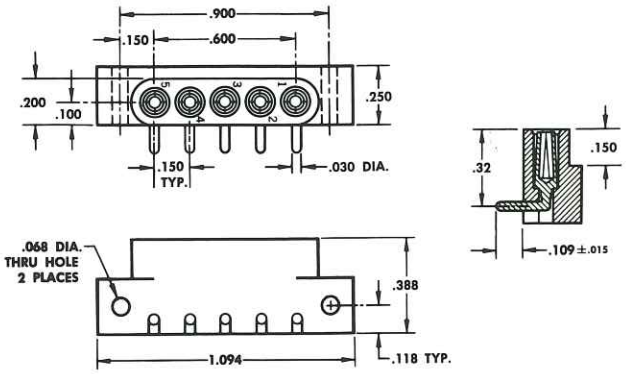
MATERIALS: DIALLYL PHTHALATE PER MIL-P-19833, COLOR: GREEN

PLATING: .000030 GOLD OVER SILVER

PART NO. 000400-0070

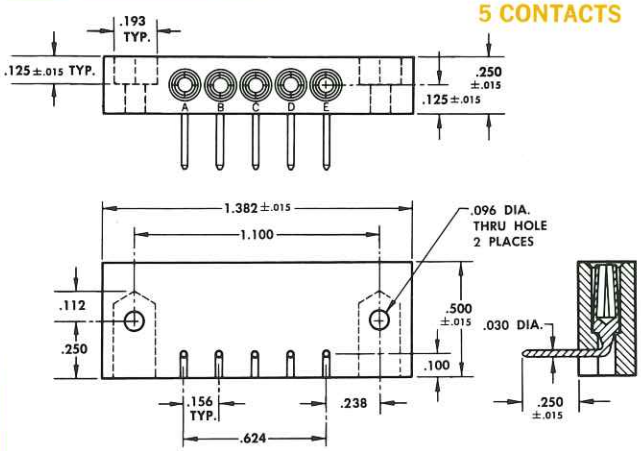
TEST POINT CONNECTORS (ACCEPTS .080" TEST PROBE)

5 CONTACTS



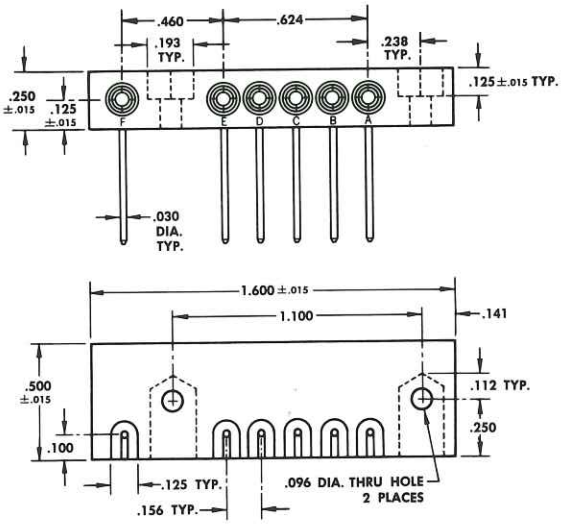
PART NO. 000400-0078

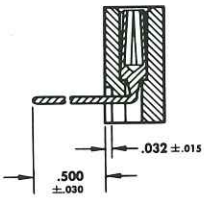
5 CONTACTS



PART NO. 000400-0087

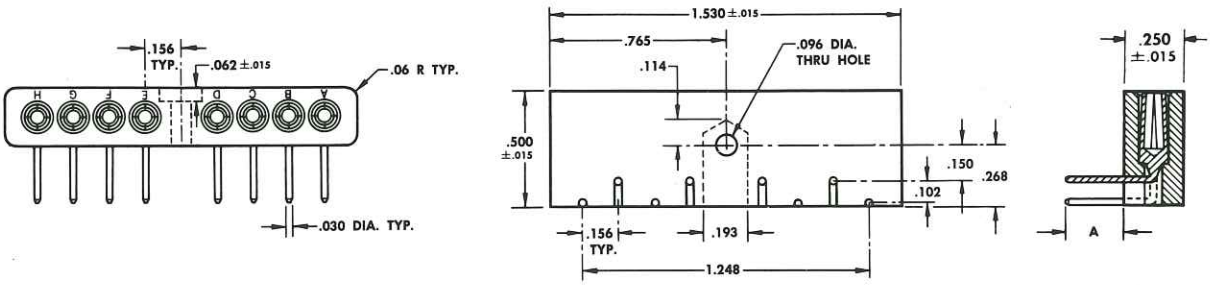
6 CONTACTS





PART NO. 000400-0069

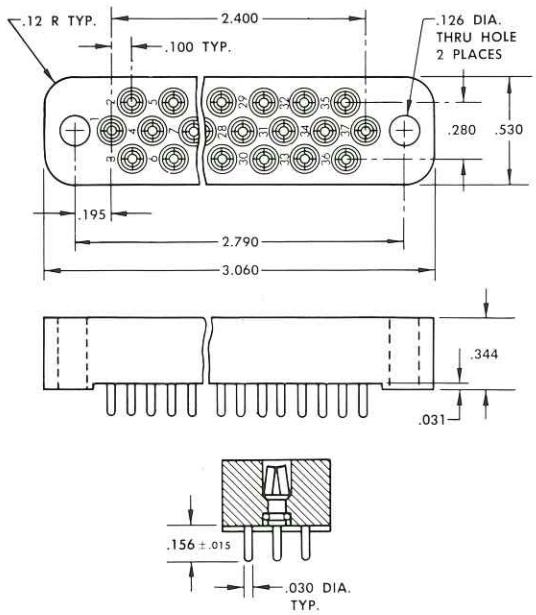
8 CONTACTS



PART NUMBER	A DIMENSION
000400-0173	.093 ±.015
000400-0100	.250 ±.015

TOLERANCE ±.005 EXCEPT WHERE NOTED

37 CONTACTS

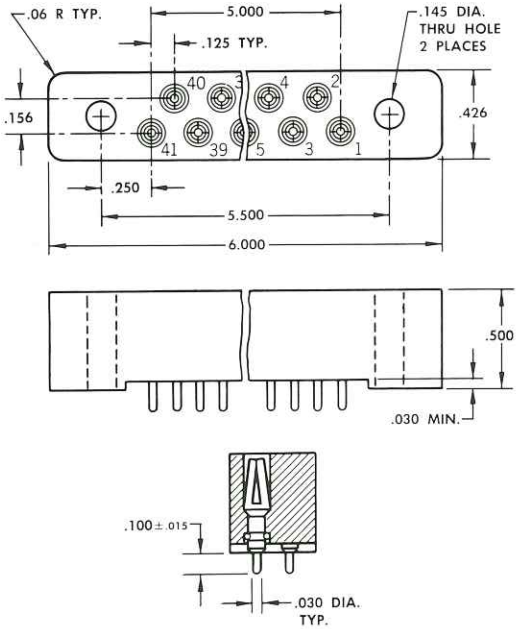


PART NUMBER: 000400-0141

INSULATOR: Diallyl Phthalate per MIL-P-19833 Type GDI-30 or SDG of MIL-M-14, color: blue

CONTACTS: Copper alloy, Gold plating per MIL-G-45204 Type II class I, over copper flash

41 CONTACTS



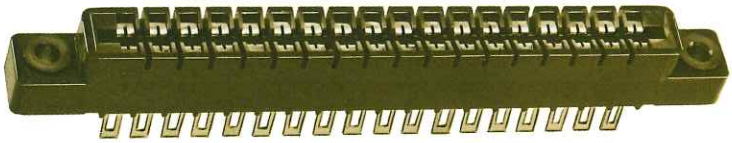
PART NUMBER: 000400-0140

MATERIALS AND PLATING:
SEE PART OPPOSITE

"VIKOM" COMMERCIAL PRINTED CIRCUIT CONNECTORS

ECONOMICALLY PRICED

Economical "Vikom" printed circuit connectors with contacts on .156" centers are manufactured specifically for commercial 1/16" board applications. Featured are bellows bifurcated contacts (gold flashed) with either dip solder or pierced terminations. The molded insulators are glass filled alkyd, containing from 6 to 22 contact positions with terminals arranged in either a single or double row. Polarizing keys, ordered separately, and installed by the customer. Slotted insulators for between-contact polarization are standard.



FEATURING BELLOWS CONTACTS

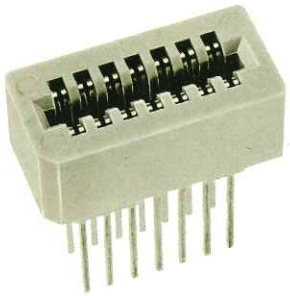
SEND FOR "VIKOM" SPECIAL CATALOG

SPECIAL PRINTED CIRCUIT CONNECTOR DESIGNS

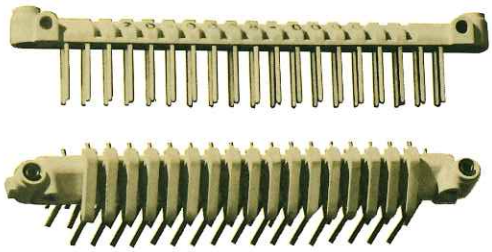
Viking's years of experience in the printed circuit field offers valuable assistance to customers whose requirements are non-standard. Please consult with us on your "special" connector designs.

INTEGRATED CIRCUIT CARRIER

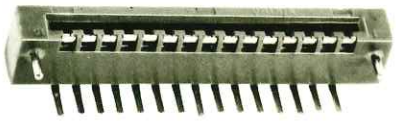
- weldable nickel contacts
- molded plastic body
- molded-in terminals



- 14 contacts on .100" centers
- wire wrap terminals
- mounting ears eliminated



- dip solder, molded-in contacts
- right angle with wire wrap terminations
- slotted construction for maximum weight reduction (airborne application)



- 15 contacts on .075" centers
- for single sided .030" printed circuit board
- right angle contacts (bellows design)

REPRESENTED BY:

VIKING INDUSTRIES INC.

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